THE LEISURE HOUR.

AMUSEMENT AND TRUE KNOWLEDGE HAND IN HAND. - Comper.

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FOREBODINGS.

MISS PILKINGTON.

CHAPTER XXI.

M ISS Patty," said Pheme, earnestly, one morning during the second winter of the former's residence at Hilcum-Seabeach, for Mrs. Pilkington did not rise now till after breakfast, and Patty, after taking up hers, had sat down alone to her own in the dining-room just before Pheme came in-"Miss Patty, I'm not easy in my mind."

No. 1396 .- SEPTEMBER 28, 1878.

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Patty, struck by her tone and look, set down her teacup hastily, and said, "What's the matter, Pheme?"

"I'm not easy in my mind about the mistress, mem," continued Pheme, drawing nearer to the table, and speaking in a low, cautious voice, though it was impossible that Mrs. Pilkington in her bedroom upstairs could hear her. "Did she tell you, Miss Patty, that she has had the writer here, that's what you English call an attorney?"

PRICE ONE PENNY.

"Mr. Morley?-No, Pheme, she has not," said

"He was here the day after Dr. Ramsbotham paid his last visit, when you were out among your poor folk," said Pheme, shaking her head. "My heart misgave me months since when she sent for the doctor of her own accord, for she never had much trolling with doctors all her days, and she used to laugh at Miss Fanny Brookes and other leddies who couldna have a sair head or a curmurring in their insides without sending for one; but confabbing with the writer is muckle waur than that, Miss Patty, and I'm sore troubled about it, so troubled that I couldna rest till I had spoken to you."

"But Mr. Morley sometimes calls on business,

Pheme," said Patty.

"Ay, mem, so he does, but it's only at the term times, and he comes then without sending for; but he was sent for the now. She gave me a note for him, and a thrippeny-piece to give to the baker's lad to leave it at his door when he passed it. I didna think much of it, though he was so long closeted with the mistress the next day, while I was told to let nobody in till he left the house; but when he came back yesterday at the same time o' day when you are aye out, with his twa clerks at his back, I kent brawly what it meant. Oh, Miss Patty, as sure as I'm a living woman, the mistress has been making her will!"

Patty listened in troubled silence; Pheme's fears communicated themselves by sympathy to her mind.

"It's no," continued Pheme, "that I think that making one's last will and testament will make a body dee the sooner; and it's a duty to set our house in order, as none o' us ken the day of our death; but I canna help putting the doctor's visit and the writer's together, and thinking that it must have been owing to something the doctor told her that she sent for Mr. Morley. She has a strong heart has the mistress; and if she had ony fears about the state of her health -she might have them, though she kept them to herself, for she's no' o' the compleening kind-she would make Dr. Ramsbotham tell her the whole truth. Oh, Miss Patty, if you are in when he comes again you might ask him. I am but a servant, and he

might think it a liberty in me."
"Yes, I will do it, Pheme," said Patty, with a sinking heart, for she had not been unobservant of a growing feebleness in her aunt for some time, and had had many anxious thoughts about it. She rose from her almost untasted breakfast; and though she tried to restrain them before Pheme, for fear of adding to her already great anxiety, tears began to steal

down her cheeks.

They were the signal for Pheme's to flow; she had been putting a restraint upon her feelings since the ill-omened return of the lawyer accompanied by his clerks the previous day; but now, at sight of Patty's emotion, the strong, resolute nature of the woman gave way, and covering her face with her apron, in the simple language of Scripture she lifted up her

voice and wept.

"I canna bear to think," she said between the bursts of her grief, "that we're going to lose her. I've been about her near forty years, and the world would be a different world to me if she was out o't. I'm fifteen years younger than her, but I someway thought she would last my time, she has such a spirit to keep her up. And maybe it may keep her up for a' that I've been fearing," added Pheme, wiping

her eyes with the apron, and then smoothing it down in front of her gown under the reviving influence of

hope.
"She didna eat an ill dinner yesterday, for I watched her," said the faithful servant; "and you mind, Miss Patty, how sharp down she was upon me, just in her usual way, when I was rather long o' shutting the drawing-room door at night. She thought I was listening if you were talking about me, for she hadna been pleased with me for forgetting a message—no wonder I forgot it in the state I was in, but she didna ken that—and she said—you mind it, Miss Patty !- that every one that has a big nose thinks that every other body is speaking about it. Eh! she little guessed what I was listening for; for I was listening, mem, to find out if she was telling you what the doctor had said to her; I would have scorned to do it for onything else. But I really dinna think, stronghearted as she is, that she would have thrown that saying about the nose at me if the doctor did tell her she was deeing. She's maybe taken the notion of settling her worldly affairs into her head, for I mind now her telling me, not long after the master's death, that folk should never leave that to the last, and that there had been a lawsuit that cost them much gear in her mother's family, because ane o' her forbears had neglected to make She had an unco ill-will to the lawyers on his will. account o' that plea-that had she !- for she said the maist o' the gear went into their pouches instead o' to the family, and that if her mother's grandsire had left a will that wouldna have happened. Depend upon it, Miss Patty, that's the reason; she's maybe been thinking about the law plea," added Pheme, brightening up as the idea occurred to her, "and her sending for the writer after the doctor was here may just have been a chance. But for a' that, Miss Patty, I would ask the doctor; you can easily do it when he comes down the stair, without the mistress kenning onything about it. But, eh,! you have ta'en nae breakfast. That's my lang tongue now; I might have waited till you had finished.'

And Pheme, who exercised a watchful superintendence over the comfort both of Patty and her mistress, looked remorsefully at the former's plate and her

unfinished cup of tea.

"Never mind, good Pheme," said Patty, kindly. "I was only overcome a little by what you said, for I had been noticing of late that my aunt is feebler and not quite like herself, and I had grown anxious about it. But it may be just the unusual cold weather of this winter that is affecting her, as it is affecting all the poor old people I visit. Mr. Darling says there has not been such a trying winter at Hil-cum-Seabeach since he came to it. Making her will may have nothing to do with any serious change in her health. I don't think we should let her know that we suspect she has done such a thing, it is possible she might ascribe it to selfish motives, though I hope not."

"Me, mem; I wouldna tell her for the warld, though I think she kens Pheme Muirhead ower weel to suspect that I am legacy hunting. I wouldna put my finger in the matter even though I thought she was leaving a' her money frae her ain kith and kin, no' to speak o' you, Miss Patty, to big an English kirk wi' an aisle fu' o' whistles in it. I trow it was for love and no' for gear that I followed her here and stayed wi' her till now. I can make my ten fingers keep me as long as I can work, and I hae saved eroug parish na, M have lower "I Phem you w aunt l not w claim with ; hand tried t and 1 Phem the ge think us. I does s you th much presse it to e "It word. she w was o could o watch were (looked if he w things begin t bairns, And yo up to 1 remove nature spirit v

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enough in her service to save me from coming on the parish or being a burden to any body after that. Na, na, Miss Patty, I ken you meant nae ill by it, for you have a kind heart o' your ain—but naebody need lower Pheme Muirhead to the like o' that."

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"I did not mean to hurt your feelings, indeed, Pheme, and I was thinking more of myself than of you when I spoke," said Patty, soothingly. "My aunt has been very kind to me already, and I should not wish her to suppose that I think I have any claim upon her in the future. It is quite different with you;" and going up to Pheme, she laid her hand caressingly on the woman's broad shoulder and tried to smile, notwithstanding she was still agitated and unhappy about her aunt. "I only meant, Pheme," she added, as the former's face softened at the gentle pressure of the fingers, "that if we show any knowledge of what she has been doing she may think we are curious about what should not concern us. I know well your love for your mistress, and so does she, Pheme. But even about her health, don't you think we should be cautious not to show too much anxiety before her? invalids are apt to be depressed by it; you and I can say what we think about it to each other."

"It's a' true, Miss Patty; you never said a truer word. My mother used to read our faces when she was ill. She was long weakly, poor body, and was of a nervish, anxious kind o' disposition, and could often only sit in the warm chimney corner and watch us as we tried to do the work. And when we were cheery and happy—especially when my father looked cheery and pleasant—she was cheery too; and if he was the contrair-and a working-man has often things to vex him both at home and abroad—she would begin to sigh to hersel' and look mournfully at the bairns, as if she thought she wouldna be lang with them. And yet, Miss Patty, the Lord let her see us a' grow up to man and woman's estate before He saw fit to remove her. No doubt the mistress is of a different nature to her; what would have crushed my mother's spirit would only play dunt against hers; but for a' that, I'll try to be cheery before her, even though my heart should grow heavy again, no' that it's very light as it is. There's one good sign about her—she's as gleg in noticing my faults and as sharp in the tongue as ever. As long as she's that I'll no' believe that there's anything seriously wrang wi'her. When she disna care what I do-oh, I hope it'll never come to that, for that would be the worst o' signs! Noo, Miss Patty, if the mistress sends you any o' her errands the day, no' a step shall you gang till you have had some strong beef-tea; I've just been making it for the mistress."

When Mrs. Pilkington made her appearance in the drawing-room that forenoon, Patty narrowly watched her when she could do it unobserved; but except that her figure was slightly attenuated, and her face more pinched and pale than it used to be, she could not say there were any signs of serious illness about her aunt. Her manner was not that of a woman who had received her death-warrant, and in consequence had been arranging her affairs. She conversed much as usual, saw some visitors, who had not allowed themselves to be confined at home by the snow-flakes which had occasionally been falling all the morning, and at dinner found fault with Pheme's bread-sauce in her customary pointed style, to the culprit's great contentment, who took the first opportunity of whispering to Patty, "Eh, Miss Patty,

wasna it comforting to hear her gang on like yon? Let her scold as she likes. My certy! Pheme Muirhead will be a' the better pleased."

Mr. Darling came in the evening, but before he left Patty saw that her aunt was fatigued, and that she did not converse with her usual liveliness. She acknowledged this to Patty when he was gone, and said it was the first time she had ever felt glad to be rid of the curate's company. "I am getting an old woman, Patty," she said, gently, when her niece had assisted her to undress, and seen her comfortably in bed. "Ah, well, my dear, 'the evening brings all home.' Good-night, Patty, and God bless you!"

"'The evening brings all home," mused Patty, when she was in her own room. "What a beautiful thought that is! Going home—home to those gone before who have died in the Lord—home especially to Jesus! Was that my aunt's meaning, I wonder!"

Patty's heart was very heavy that night. She dreaded that another separation was before her; she was not so hopeful as Pheme; she knew more about illness, and did not attach the same importance to things that she did; lifelong habits were not easily broken; but she would not say this to the affectionate servant. Her aunt had certainly aged rapidly this winter, though, till this evening her spirits seemed unbroken, and her enjoyment of the society of the friends she liked was the same as ever.

A few days went by and she was much in the same feeble, but not thoroughly invalid state; she never refused herself to visitors, but gradually she allowed Patty to relieve her of the burden of conversation, and did not object when the former, after a private conference with the curate, decided not to spend so much time out-of-doors, thus leaving her aunt too long alone in the forenoon.

Mr. Darling was much concerned to hear of Mrs. Pilkington's failing health, but at Patty's earnest entreaty forbore to allude to it, Patty being persuaded that it was better to leave her aunt to speak of it when she chose; she knew such a time would come sooner or later.

CHAPTER XXII.

"I am not one of those people, Patty, who can talk of these things and speak glibly about their experiences; but, my dear, be assured I have no confidence in anything but what is written in the pages of this book," she said, laying her thin, wasted hand on the Testament, which lay open on the table beside her bed, and from which Patty had been reading to her. "Read it often to me, Patty, but not too much at a time, for I cannot stand it. Read where you will, you cannot go wrong, but never forget to read the 103rd Psalm to me. I call it my psalm, Patty." And Patty shortly after heard her murmur to her self these verses of it: "He hath not dealt with us after our sins;" "So far as the east is from the west, so far hath He removed our transgressions from us."

Gradually Mrs. Pilkington grew weaker, but her strength of faith was the more marked as her feebleness increased. Patty nursed her tenderly and devotedly, and much she learned of heavenly wisdom from her aged lips. Pheme could hardly bring herself to believe that the end was near. One day, when her mistress said something that implied coming separation, poor Pheme burst into tears:

"O no, mem, dinna say tnat; you'll be up and

"I'll never be up, Pheme; never, till I'm carried out of this to the hearse. I see death looking in at me from the foot of the bed, and I'm very glad to

And it was truly so. The dear old saint looked with clear faith and glad hope to be with her God and Saviour. All her worldly affairs were arranged, her "house set in order," as she called it, and she was ready to depart when the appointed time came.

We pass over the last scene and the sad incidents that always accompany death. What most concerns the heroine of our story is to record that by her aunt's will Patty became mistress not only of her uncle's patrimony, £5,000, but, as a special token of Mrs. Pilkington's affection, also of the house at Hilcum-Seabeach, thus relieving her from all pecuniary anxieties in the future.

We must also record an amusing but important incident that occurred at the reading of Mrs. Pil-

kington's will.

There was a pause of silence after the lawyer finished, and the first to speak was "Nathaniel."
"I don't think in honour I can accept of this legacy, Mr. Brackenridge," said the curate, in a low, distressed tone, appealing to the rector who sat opposite to him at the table.

"Not accept it! why not?" asked the rector, in

his usual abrupt manner.

"I am no relation, and it might be an injustice to those who are," replied the curate, glancing towards Patty, who was seated on a sofa at a little distance from the gentleman.

"Nonsense! Mr. Darling, what has relationship to

do with it?"

"I was not related to my aunt-that is, there was no blood relationship between us," said Patty, who, of course, heard this talk as well as the lawyer, "and yet I have no hesitation in accepting the liberal provision which she has so kindly made for me."

"That's speaking like a sensible woman, Miss Pilkington. Do you hear that, Darling?" said the

"Yes; but I have another reason besides," said the curate, colouring and looking perplexed and uncomfortable. "I have been such a constant visitor at this house, sir, ever since I came to the town, I am afraid people may suspect that I have been-well, legacy-hunting, if I accept it, and it would hurt my

usefulness; you must see it, sir."

"I see nothing of the kind," said the downright "They are entitled to say the same thing of me, for I am sure I have been almost as great a visitor of our worthy departed friend as you have been; and yet you see that has nothing to do with it, for she has not left me a legacy. People that know you will never believe it, Darling."

"I am not sure of that, sir, and we should avoid even the appearance of evil. There could be no fear of suspicion attaching to your visits, sir; but I am a poor man, and they might think that from interested motives I had tried to propitiate Mrs. Pilkington."

"As if everybody that knew her does not knew that there never was a person less likely to be blind to such motives in any one than that worthy lady. you had been legacy-hunting, as you call it, my good friend, she would have found you out at the very outset, and instead of leaving you one, she would

have expressed her mind to you in such plain terms that I think you would never have sought her presence again. As to the people, they would as soon suspect Nathaniel the Israelite indeed, in whom was no guile, and whom I have heard Mrs. Pilkington compare you to, of interested motives."

Mr. Darling still looked undecided and anxious, though his scruples were evidently yielding somewhat

to the rector's decided remonstrances.

"And besides," continued the rector in a repreachful tone, and skilfully availing himself of the curate's tenderness of heart as well as of conscience, "what a slight it will be to the memory of this good friend, who in leaving you this small sum meant it as a testimony of her dying friendship and regard, if you fling it back as it were at her coffin, which you have just helped to lay in the grave. I am ashamed of you, Mr. Darling; I really am ashamed of you. Don't you see it in that light, Mr. Lethbridge?"

"Certainly," replied the lawyer, gravely, and expressing a desire to wink at his clerical friend.

Poor Mr. Darling looked thunderstruck at this new turn which Mr. Brackenridge had given to the He began to feel himself a monster of ingratitude, for there was the lawyer viewing his reluctance in the same manner as the rector, and he fairly broke down under it.

"Well, sir-well, gentlemen, if you think so. am sure no one can be more grateful than I am to my late excellent and most esteemed friend, though I feel that I have not merited such generosity from I do, indeed. I shall accept it then-you think I am right in doing so, also, Miss Pilkington?"

"I have not a doubt of it, Mr. Darling," said Patty, feeling great respect for the single-hearted

"It would never have done to refuse it-quite an insult to Mrs. Pilkington's memory, Mr. Darling," said the lawyer, shaking his head.
"Very good, sir," replied Mr. Darling, feeling somewhat ashamed of his scruples.

"I shall wear the mourning ring willingly for her sake," said the rector, "and there will be many who will miss her sorely at Hilcum-Seabeach as well as you, Mr. Darling. Were you aware, Miss Pilkington, of the extent of your aunt's charities?"

"No, sir," answered Patty; "she never alluded to them to me, but it was easy for me to see how

kindhearted and benevolent she was."

"Yes, there was a fine rich vein concealed behind that rough outside rind. Of all women that I have met, Mrs. Pilkington was the one who best exemplified the precept, 'Let not thy left hand know what thy right hand doeth.' Except you and me, Darling, I don't suppose any one has any conception of the extent of her beneficence."

"She will be much missed, indeed, by the poor,"

said the curate, in a melancholy tone.

Poor Pheme was very much broken down by her mistress's death, and soon informed Patty of her inten-tion to return to Scotland. English ways had never suited her; she had merely put up with them for Mrs. Pilkington's sake; now that she was gone, Pheme's only wish was to end her days in her old home at Cloich; and she left, giving Patty many injunc-tions as to the guiding of the English lass who was to be her successor.

"And if I might advise you, Miss Patty, dinna lippen ower much to your English lass that's coming

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the pos for a la energy -but l about, v him per in my place. I can say wi' a clear conscience that I thought as much o' my mistress's interests as o' my ain—mair, maybe. But that English creatures that are here as day and gone another, what can ye expect from the like o' them? so dinna trust her ower far, Miss Patty."

"But, Pheme," said Patty, "surely there are trustworthy servants to be found in England as well

as in Scotland."

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"I'm no misdooten't, Miss Patty; but they are like the trout in the Bleak loch at hame, few o' them, and ill to catch. They dinna ken what our Hieland feelings are to those whose land we have been born on. But, Miss Patty, ye'll take care that I am clear out o' the house before the new lass comes hame. It's no' lucky for an outgoing and incoming servant to meet. Mrs. Tibbets, the washerwoman, would be willing to come in for an hour or twa. To be an ignorant creature that canna write her ain name, she's honest for an Englishwoman."

The remainder of the story we must tell in few words. A new volume in Patty's life is about to commence, but we are not going to open it here.

Shortly after Mrs. Pilkington's death a time of great sickness came to Hilcum-Seabeach, and many of the poor in the lower part of the town were swept away—victims of a virulent fever which ravaged the

district around.

Mr. Darling threw himself into the work of visiting and tending the sick with his usual zeal, never sparing himself when he could be of any use. This went on for a week or two, till one day Patty missed the curate in his usual haunts, and soon heard that he had been attacked by fever, and was lying dangerously ill. She was much distressed with the fear that he might be neglected by his very indifferent landlady. She summoned all her courage, presented herself at Mr. Darling's door, and, on inquiring for him, was agreeably surprised by the amount of concern exhibited by Mrs. Davis, who, however, declared herself quite unable to give her lodger all the attention he required, and, owing to the still prevailing sickness in the town, a nurse was not to be had for love or money.

On hearing that he recognised no one, Patty proposed to take Mrs. Davis's place in the sick-room that night, which offer was eagerly accepted while the unconscious delirium lasted. For several successive nights Patty nursed Mr. Darling, but, on his showing signs of recovery, left the house, charging his landlady never to reveal to him how he owed this recovery mainly to the constant care and attention she had bestowed on him when in the worst stage of his

illness.

Mrs. Davis kept the secret as far as the curate was concerned, but the rector got the whole story from her. It suddenly occurred to the latter gentleman how well suited Darling and Patty would be to each other, and with some amusement he recalled a conversation he once had with Mrs. Pilkington, in the course of which she asked him if he could not help the curate to a good wife with a comfortable independence.

The rector had a selfish motive for wishing the match. He was sometimes uneasy when he considered the possibility of his curate leaving him—perhaps for a larger town, as affording greater scope for the energy which Mr. Darling possessed to such a degree—but his marriage to Patty, if it could be brought about, would be almost a certain means of settling him permanently at Hilcum-Seabeach.

Mr. Breckenridge, having thought over the matter, and considered what arguments were likely to have most weight with Mr. Darling, suggested to him one day what a help a good wife would be to him in his work, and further, how Patty Pilkington would be the very person to suit him. The curate was quite aware of all Miss Pilkington's good qualities, but in his humility considered it the height of presumption on his part to think of her in such a way. The rector changed his tactics; he informed Mr. Darling, to the latter's astonishment and exceeding gratitude, to whose kindness in his late illness he in some measure owed his life, and the rector ended by forcibly representing to him that the only thing to be done in the circumstances was to put it in Patty's power to say yes or no to an offer to make her Mrs. Darling.

Patty did not say no. To the great satisfaction of their mutual friends, Mr. Darling and she were married, and became more than ever the benefactors of the poor around them in Hilcum-Seabeach.

FRENCH CONSTITUTIONS.

THE story is told of an old French marquis, who in engaging a new valet said his first duty on calling him each morning was to tell him under what constitution he was. So frequent and so rapid were the changes that this was no easy task—at least the story si non vero e ben trovato, and is a clever satire on the instability of French institutions. There are men alive now who have witnessed all the successive changes from the ancien régime, through the great Revolution, the Reign of Terror, the Consulate, the Empire, the Restoration of the Bourbons, the reign of Louis Philippe, the Revolution of 1848, the Republic, the Second Empire, down to the Republic of today.

A visible and notable illustration of these changes appeared in the Exposition of 1878. It is not found in the catalogues, for it was a happy afterthought, and was no doubt overlooked by many, amidst the multitude of objects more conspicuous and more at-

tractive to the average visitor.

One of the rooms in the "Galerie des Arts Libéraux" has the inscription over the door, "L'Imprimerie Nationale." Specimens are here found of the magnificent works printed, illustrated, and bound, at the Government official printing press. There are also to be seen well arranged series of the national coins, medals, seals, and other historical art memorials. But it was in a glass case in the centre of the room that we found one of the most interesting and suggestive displays in the whole Exposition. Arranged for inspection is a series of the original Ms. parchments and printed broadsheets of the national Constitutions, from 1791 to 1875. These remarkable State documents were sent from the Archives de la Chancellerie, by the Minister of Justice, in whose custody they are.

The first in the series is the celebrated declaration of "The Rights of Man," decreed by the National Convention in 1791. It thus begins: "The Representatives of the People, considering that ignorance, forgetfulness, or disregard (l'ignorance, l'oubli, ou le mépris) of the Rights of Man are the sole causes of public calamities and the corruption of government, proclaim (exposent), in a solemn declaration, the natural, inalienable, and sacred rights of man, in

order that this declaration, constantly present, may | recall to all members of the social body their rights and duties." Then follow statements of the first

principles of political order and liberty.

The second document is headed, "Decret de l'Assemblée Nationale. Constitution Française, donnée à Paris, 14th Sept., 1791." The king was still nominally at the head of the State, and the law is proclaimed in his name: "Louis, par la grace de Dieu, et par la loi constitutionelle de l'Etat, Roi de France," etc.

Poor Louis xvi! What a descent from the "L'Etat c'est Moi" of the "Grand Monarque!"

The decree thus commences, "L'Assemblée Nationale a décrété, et nous voulons et ordonnons ce and the "Déclaration des droits de l'homme et du citoyen." que suit." Then follows the "Decret de l'Assemblée,"

Of this royal ordonnance Carlyle says, in his grim way, "Extremely rheumatic constitutions have been known to march and keep on their feet, though in a staggering, sprawling manner, for long periods in virtue of one thing only-that the head were healthy. But this head of the French Constitution! A king who cannot take the Constitution, nor reject the Constitution, nor anything at all, but miserably ask, What shall I do? A king environed with endless confusions, in whose mind is no form of order! Poor

king!"

In the next State document "the grace of God" is heard of no more, for religion has been abolished, and royalty itself has disappeared by the guillotine. Then comes a "Decret de l'Assemblée Nationale," headed, "Loi, Constitution Française. Thermidor an III." The next notable change is where "Bona-parte, Premier Consul," proclaims the "Loi de la Republique." Then comes a "Senatus Consulate Organique," beginning, "Napoleon, par la grâce de Dieu et par la Constitution de la République, l'Empereur des Français." There still lingered a verbal respect for the will of God and the People, but later decrees speak in more imperial tones, in the same spirit that led the great conqueror to crown himself and Josephine with his own hands.

We have now passed Elba and Waterloo and St. Helena, and the national proclamations come from Louis xvIII, Roi de France et Navarre, and from Charles x. In 1830 a new epoch begins, and the "Charte Constitutionelle" of 14th August, 1830,

appears, in virtue of which the Citizen-King reigns.
To Louis Philippe succeeds the "République Française," with the familiar motto still retained, "Liberté, Egalité, Fraternité." The famous Constitution to which Louis Napoleon swore allegiance has due prominence, and its terms are worthy of note: "Constitution faite en vertu des pouvoirs délégués par le Peuple Français à Louis Napoleon Bonaparte, par le vote du 20 et 21 Dec. 1851." Le Président de la République, as we all know, soon made himself l'Empereur Napoleon III, and so remained till the catastrophe of Sedan. Then came, after the German War and the suppression of the Commune, the long deliberations of the Assemblée Nationale of 1873, resulting in the "Loi relative à l'organisation des pouvoirs publics," settled finally 22nd January, 3rd and 25th February, 1875, with Marshal MacMahon as president for seven years. There seemed at one time danger of a reaction, but the president has latterly accepted the situation with apparent loyalty, and the Republic has at present every prospect of

general recognition. But there are many possibilities in the future. Louis Napoleon was elected "Chef responsable" for ten years. Even if Mac Mahon faithfully serves for his appointed time, what will happen at the end of the Septennat? next? - and next? It wants yet ten years of a century since the memorable 1789.

A CAPTIVE BALLOON.

A MONG the miscellaneous excitements of Paris during the Exposition was a gigantic balloon, which made ascents from the Place du Carrousel, in front of the ruined Tuileries. It was no ordinary "captive balloon." As to size, it was the largest ever constructed—the Great Eastern of aërostats. Seen from any point of vantage, as from the Trocadéro, it overtopped all the palaces and triumphal arches of the city. It was ten mètres higher even than the Arc de l'Etoile, and its diameter equalled that of the dome of St. Sophia at Constantinople. When it rose, it looked as if some great edifice was detaching itself from the earth, and mounting into the air. Once ascended, and free from surrounding buildings, its colossal proportions diminished, as the harvest moon, sailing in the sky, dwindles from the size it had presented when level with trees and farmhouses, or as an Atlantic steamer, which had towered above ship-crowded docks, seems no larger than an ordinary vessel when in mid-ocean. But when seen beside the Tuileries and the Arc du Carrousel, the balloon seemed of enormous dimensions. The work-men, climbing in its enclosed network, looked like little flies scattered in a huge spider-web, and the crowds of people on the ground were like ants bustling round a vast ant-hill.

Unusual care had to be taken in constructing so large a machine, the hydrogen with which it was filled having to be preserved for some months. In place of the hemp rope usually employed in the network, the cords were encased in soft leather, so soft as to avoid all risk of injuring the silk by friction.

The detaining rope required to be of enormous strength, as the rapidity with which the balloon would dart up, if free, would be like that of a cannonball, and with force that would snap a ship's cable three times the size. The gradation of force was secured by the rope being coiled round a windlass, 8,000 or 9,000 pounds weight, worked by a steamengine of 300 horse-power. Yet the hand of a child could direct and control its movement, and in this machine was seen the genius of M. Henri Giffard, the inventor of steam captive balloons. M. Giffard is already famed for inventions, notably for the apparatus for feeding boilers, named after him, the "Giffard Injector," which brings to him a large annual royalty. His amusement has been aërostatics, and he keeps a pleasure balloon, as Jules Verne keeps a pleasure yacht. The balloon of the Tuileries is said to have cost M. Giffard £20,000.

When we saw the balloon, at the end of July, ascents had been made by many distinguished personages, men of science, statesmen, journalists, and official celebrities of all sorts, invited by M. Gaston Tissandier, director of the enterprise. The ascents of the general public at a napoleon a head, had commenced, and sanguine expectations were cherished coun seem seem d'wil mon seem the 1 like instr only We zagg Dam the Viet Char mak after slow T Sept Step Lyon balle

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of large crowds making the aërial voyage. A journalist, on one of the early ascents, graphically described his impressions: "It was about seven o'clock; the setting sun irradiated the town with golden glory. A slight haze spread itself over the country like a veil of gauze. While the earth seemed slowly to recede, the noise of the capital seemed to rise with us. What a wonderful coup d'wil! As the houses diminished, and the several monuments dwarfed themselves, Paris as a whole seemed larger and more imposing. Beneath us, on the Place du Carrousel, on the quays, men looked One of the aëronauts examined the like black dots. instrument for telling the pressure. The tension is only one-sixth of what the cable is calculated to bear. We still ascend. The streets look like threads zigzagging across the grey plain of buildings. Notre Dame is like a little image, like the engraving on the front page of the 'Illustrated Romances of Victor Hugo.' The Palace of the Trocadéro and the Champ de Mars look like toys. Eugene Godard makes a signal, the steam machine below stops; then, after halting about five minutes, the balloon begins slowly to descend without the least disturbance.

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The earliest ascent ever made was at Paris, in September, 1783. In the year previously the brothers Stephen and John Montgolfier, paper-makers, at Lyons, had made several demonstrations, first with balloons filled with air rarefied by heat, and afterwards with inflammable gas or hydrogen roughly made. The news of these experiments reaching Paris, a great balloon was constructed of silk, coated with varnish, about fifteen feet in diameter. After much difficulty this balloon, which was filled in the city, was conducted before daybreak to the Champ de Mars, about two miles off. At five in the afternoon a discharge of cannon announced the departure, and the balloon

rose majestically about 3,000 feet, when it became lost to sight in clouds. After remaining in the atmosphere about three-quarters of an hour, it fell about 25 miles distant from the place of ascent. The invention at once became immensely popular, and baloons of all shapes and sizes were ascending from every part of Paris and France. M. Montgolfier was sent for to repeat his experiment before the king, Louis xvi, and the royal family, at Versailles, where a successful ascent was made by a tastefully decorated and painted balloon. A sheep, a cock, and a duck were placed in the car. The machine rose above 1,000 feet, and, drifting with the wind, fell at Vancresson, eight hours after.

Two months later, M. Pilatre de Rozier offered himself to make the ascent, which was accomplished from a garden in the Faubourg St. Antoine, on 15th September, 1783. This was the first ascent by any human aëronaut, and it was with a "ballon captif." A month later M. de Rozier ventured to make an ascent in a free balloon, which rose from the garden of the palace of La Muette, at Passy, in presence of a vast multitude. He was accompanied by the Marquis d'Arlandes. This was on 29th November, 1783. On December 1st another ascent was made by M. Robert and M. Charles in a large balloon, and with various improvements, both of structure and management. Since that time the history of aërostation is familiarly known, and is narrated in many books and treatises.* Captivo

* See a series of papers on "The Balloon and its Application," by James Glaisher, F.R.S., in "Leisure Hour" for 1864.

balloons are now rarely employed, except for amuse-

ment or for scientific experiments, or when they are

of extraordinary size, such as that of the Tuileries

in the year of the great Exposition or 1878.



LETTERS FROM THE ROCKY MOUNTAINS.

BY ISABELLA L. BIRD, AUTHOR OF "SIX MONTHS IN THE SANDWICH ISLANDS," ETC.

XI.

Hael's Gulch, Colorado, November 6.—It was another cloudless morning, one of the many here on which one awakes early, refreshed, and ready to enjoy the fatigues of another day. In our sunless, misty climate you do not know the influence which persistent fine weather exercises on the spirits. I have been ten months in almost perpetual sunshine, and now a single cloudy day makes me feel quite depressed. I did not leave till 9.30, because of the slip periness, and shortly after starting turned off into the wilderness on a very dim trail. Soon seeing a man riding a mile ahead, I rode on and overtook him, and we rode eight miles together,

which was convenient to me, as without him I should several times have lost the trail altogether. Then his fine American horse, on which he had only ridden two days, broke down, while my "mad, bad, broncho," on which I had been travelling for a fortnight, cantered lightly over the snow. He was the only traveller I saw in a day of nearly twelve hours. I thoroughly enjoyed every minute of that ride. It concentrated all my faculties of admiration and locality, for truly the track was a difficult one. I sometimes thought it deserved the bad name given to it at Sinet. For the most part it keeps in sight of Tarryall Creek, one of the large affluents of the Platte, and is walled in

on both sides by mountains, which are sometimes so close together as to leave only the narrowest canyon between them, at others breaking wide apart, till, after winding and climbing up and down for twenty-five miles, it lands one on a barren, rock-girdled park, watered by a rapid fordable stream as broad as the Ouse at Huntingdon, snow-fed and ice-fringed, the park bordered by fantastic rocky hills, snow-covered and brightened only by a dwarf growth of the beautiful silver pruce. I have not seen anything hitherto so thoroughly wild and unlike the rest of these parts.

I rode up one great ascent where hills were tumbled about confusedly; and suddenly across the broad ravine, rising above the sunny grass and the deepgreen pines, rose in glowing and shaded red against the glittering blue heaven a magnificent and unearthly range of mountains, as shapely as could be seen, rising into colossal points, cleft by deep-blue ravines, broken up into sharks' teeth, with gigantic knobs and pinnacles rising from their inaccessible sides, very fair to look upon, a glowing, heavenly, unforgetable sight, and only four miles off. Mountains they looked not of this earth, but such as one sees in dreams alone, the blessed ranges of "the land which is very far off." They were more brilliant than those incredible colours in which painters array the fiery hills of Moab and the Desert, and one could not believe them for ever uninhabited, for on them rose as in the East the similitude of stately fortresses, not the grey castellated towers of feudal Europe, but gay, massive, Saracenic architecture, the outgrowth of the solid rock. They were vast ranges, apparently of enormous height, their colour indescribable, deepest and reddest near the pine-draped bases, then gradually softening into wonderful tenderness, till the highest summits rose all flushed, and with an illusion of transparency, so that one might believe that they were taking on the hue of sunset. Below them lay broken ravines of fantastic rocks, cleft and canyoned by the river, with a tender unearthly light over all, the apparent warmth of a glowing clime, while I on the north side was in the shadow among the pure unsullied snow.

"With us the damp, the chill, the gloom, With them the sunset's rosy bloom."

The dimness of earth with me, the light of heaven with them. Here, again, worship seemed the only attitude for a human spirit, and the question was ever present, "Lord, what is man that Thou art mindful of him, or the son of man that Thou visitest him?" I rode up and down hills laboriously in snowdrifts, getting off often to ease my faithful Birdie by walking down ice-clad slopes, stopping constantly to feast my eyes upon that changeless glory, always seeing some new ravine, with its depths of colour or miraculous brilliancy of red, or phantasy of form. Then below, where the trail was locked into a deep canyon where there was scarcely room for it and the river, there was a beauty of another kind in solemn gloom. There the stream curved and twisted marvellously, widening into shallows, narrowing into deep boiling eddies, with pyramidal firs and the beautiful silver spruce fringing its banks, and often falling across it in artistic grace, the gloom chill and deep, with only now and then a light trickling through the pines upon the cold snow, when suddenly turning round, I saw behind, as if in the glory of an eternal sunset, those flaming and fantastic peaks. The effect of the combination of winter and

summer was singular. The trail ran on the north side the whole time, and the snow lay deep and pure white, while not a wreath of it lay on the south side, where abundant lawns basked in the warm sun.

The pitch pine, with its monotonous and somewhat rigid form, had disappeared; the white pine became scarce, both being displaced by the slim spires and silvery green of the miniature silver spruce. Valley and canyon were passed, the flaming ranges were left behind, the upper altitudes became grim and mysterious. I crossed a lake on the ice, and then came on a park surrounded by barren, contorted hills, overtopped by snow mountains. There, in some brushwood, we crossed a deepish stream on the ice, which gave way, and the fearful cold of the water stiffened my limbs for the rest of the ride. All these streams become bigger as you draw nearer to their source, and shortly the trail disappeared in a broad, rapid river, which we forded twice. The trail was very difficult to recover. It ascended ever in frost and snow, amidst scanty timber dwarfed by cold and twisted by storms, amidst solitudes such as one reads of in the High Alps; there were no sounds to be heard but the crackle of ice and snow, the pitiful howling of wolves, and the hoot of owls. The sun to me had long set; the peaks which had blushed were pale and sad; the twilight deepened into green; but still "Excelsior!" There were no happy homes with light of household fires; above, the spectral mountains lifted their cold summits. As darkness came on I began to fear that I had confused the cabin to which I had been directed with the rocks. To confess the truth, I was cold, for my boots and stockings had frozen on my feet, and I was hungry too, having eaten nothing but raisins for fourteen hours. After riding thirty miles I saw a light a little way from the track, and found it to be the cabin of the daughter of the pleasant people with whom I had spent the previous night. Her husband had gone to the plains, yet she, with two infant children, was living there in perfect secu-Two pedlers, who were peddling their way down from the mines, came in for a night's shelter soon after I arrived—ill-looking fellows enough. They admired Birdie in a suspicious fashion, and offered to "swop" their pack-horse for her. I went out the last thing at night and the first thing in the morning to see that "the powny" was safe, for they were very importunate on the subject of the "swop." I had before been offered 150 dollars for her. I was obliged to sleep with the mother and children, and the pedlers occupied a room within ours. It was hot and airless. The cabin was papered with the "Phrenological Journal," and in the morning I opened my eyes on the very best portrait of Dr. Candlish I ever saw, and grieved truly that I should never see that massive brow and fantastic face again.

Mrs. Link was an educated and very intelligent young woman. The pedlers were Irish Yankees, and the way in which they "traded" was as amusing as "Sam Slick." They not only wanted to "swop" my pony, but to "trade" my watch. They trade their souls, I know. They displayed their wares for an hour with much dexterous flattery and persuasiveness, but Mrs. Link was untemptable, and I was only tempted into buying a handkerchief to keep the sun off. There was another dispute about my route. It was the most critical day of my journey. If a snowstorm came on I might be detained in the

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mountains for many weeks, but if I got through the snow and reached the Denver waggon-road, no detention would signify much. The pedlers insisted that I could not get through, for the road was not broken. Mrs. L. thought I could, and advised me to try, so I saddled Birdie and rode away.

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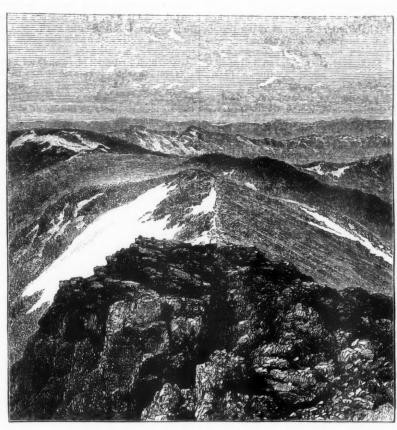
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More than half of the day was far from enjoyable. The morning was magnificent, but the light too dazzling, the sun too fierce. As soon as I got out I felt as if I should drop off the horse. My large handkerchief kept the sun from my neck, but the

a man, and I had no means of knowing whether they led in the direction I ought to take. Earlier, before the snow became so deep, I passed the last great haunt of the magnificent mountain bison, but, unfortunately, saw nothing but horns and bones. Two months ago Mr. Link succeeded in separating a calf from the herd, and has partially domesticated it. It is a very ugly thing at seven months old, with a thick beard, and a short, thick, dark mane on its heavy shoulders. It makes a loud grunt like a pig. It can outrun their fastest horse, and it sometimes leaps



THE GREAT DIVIDE.

fierce heat caused soul and sense, brain and eye, to | reel. I never saw or felt the like of it. I was at a height of 12,000 feet, where, of course, the air was highly rarefied, and the snow was so pure and dazzling that I was obliged to keep my eyes shut as much as possible to avoid snow blindness. The sky was a different and terribly fierce colour; and when I caught a glimpse of the sun he was white and unwinking like a lime-ball light, yet threw off wicked scintillations. I suffered so from nausea, exhaustion, and pains from head to foot, that I felt as if I must lie down in the snow. It may have been partly the early stage of soroche, or mountain sickness. We plodded on for four hours, snow all round, and nothing else to be seen but an ocean of glistening peaks against that sky of infuriated blue. How I found my way I shall never know, for the

over the high fence of the corral, and takes all the milk of five cows.

The snow grew seriously deep. Birdie fell thirty times, I am sure. She seemed unable to keep up at all, so I was obliged to get off and stumble along in her footmarks. By that time my spirit for overcoming difficulties had somewhat returned, for I saw a lie of country which I knew must contain South Park, and we had got under cover of a hill which kept off the sun. The trail had ceased; it was only one of those hunter's tracks which continually mislead one. The getting through the snow was awful work. I think we accomplished a mile in something over two hours. The snow was two feet eight inches deep, and once we went down in a drift the surface of which was rippled like sea sand, Birdie up to her back, and I up to my shoulders! At last we got through, and I only marks on the snow were occasional footprints of beheld, with some sadness, the goal of my journey,

"The Great Divide," the snowy range, and between me and it South Park, a rolling prairie seventy-five miles long and over 10,000 feet high, treeless, bounded by mountains, and so rich in sun-cured hay that one might fancy that all the herds of Colorado could find pasture there. Its chief centre is the rough mining town of Fairplay, but there are remains of great mineral wealth in various quarters. The region has been "rushed," and mining camps have risen at Alma and elsewhere, so lawless and brutal that vigilance committees are forming as a matter of necessity. South Park is closed, or nearly so, by snow during an ordinary winter; and just now the great freight waggons are carrying up the last supplies of the season, and taking down women and other temporary inhabitants. A great many people camp up there in the summer. The rarefied air produces great oppression on the lungs, accompanied with bleeding. It is said that you can tell a new arrival by seeing him go about holding a bloodstained handkerchief to his mouth. But I came down upon it from regions of ice and snow; and as the snow which had fallen on it had all disappeared by evaporation and drifting, it looked to me quite lowland and livable, though lonely and indescribably mournful, "a silent sea," suggestive of "the muffled oar." I cantered across the narrow end of it, delighted to have got through the snow; and when I struck the "Denver stage-road" I supposed that all the difficulties of mountain travel were at an end, but this has not turned out to be exactly the case.

A horseman shortly joined me and rode with me, got me a fresh horse, and accompanied me for ten miles. He was a picturesque figure and rode a very good horse. He wore a big slouch hat, from under which a number of fair curls hung nearly to his waist. His beard was fair, his eyes blue, and his complexion ruddy. There was nothing sinister in his expression, and his manner was respectful and frank. He was dressed in a hunter's buckskin suit ornamented with beads, and wore a pair of exceptionally big brass spurs. His saddle was very highly ornamented. What was unusual was the number of weapons he carried. Besides a rifle laid across his saddle and a pair of pistols in the holsters, he carried two revolvers and a knife in his belt, and a carbine slung behind him. I found him what is termed "good company." He told me a great deal about the country and its wild animals, with some hunting adventures, and a great deal about Indians and their cruelty and treachery. All this time, having crossed South Park, we were ascending the Continental Divide by what I think is termed the Breckenridge Pass, on a fairly good waggon-road. We stopped at a cabin, where the woman seemed to know my companion, and, in addition to bread and milk, pro-We rode on again, and duced some venison steaks. reached the crest of the Divide (see engraving), and saw snow-born streams starting within a quarter of a mile from each other, one for the Colorado and the Pacific, the other for the Platte and the Atlantic. Here I wished the hunter good-bye, and reluctantly turned north-east. It was not wise to go at all, and it was necessary to do it in haste. On my way down I spoke to the woman at whose cabin I had dined, and she said, "I am sure you found Comanche Bill a real gentleman," and I then knew that my intelligent, courteous companion was one of the most notorious desperadoes of the Rocky Mountains, and the greatest Indian exterminator on the frontier!

After riding twenty miles, which made the distance for that day fifty, I remounted Birdie to ride six miles farther, to a house which had been mentioned to me as a stopping-place. The road ascended to a height of 11,000 feet, and from thence I looked my last at the lonely, uplifted prairie sea. "Denver stage-road!" The worst, rudest, dismallest, darkest road I have yet travelled on, nothing but a winding ravine. The Platte canyon, pine-crowded and pinedarkened, walled in on both sides for six miles by pine-skirted mountains 13,000 feet high! Along this abyss for forty miles there are said to be only five houses, and were it not for miners going down, and freight-waggens going up, the solitude would be awful. As it was, I did not see a creature. It was four when I left South Park, and between those mountain walls and under the pines it soon became quite dark, a darkness which could be felt. The snow which had melted in the sun had refrozen, and was one sheet of smooth ice. Birdie slipped so alarmingly that I got off and walked, but then neither of us could keep our feet, and in the darkness she seemed so likely to fall upon me, that I took out of my pack the man's socks which had been given me at Perry's Park, and drew them on over her fore feet, an expedient which for a time succeeded admirably, and which I commend to all travellers similarly circumstanced. It was unutterably dark, and all these operations had to be performed by the sense of touch only. I remounted, allowed her to take her own way, as I could not see even her ears, and though her hind legs slipped badly, we contrived to get along through the narrowest part of the canyon with a tumbling river close to the road. The pines were very dense, and sighed and creaked mournfully in the severe frost, and there were other eerie noises not easy to explain. At last, when the socks were nearly worn out, I saw the blaze of a camp fire, with two hunters sitting by it, on the hill-side, and at the mouth of a gulch something which looked like buildings. We got across the river partly on ice and partly by fording, and I found that this was the place where, in spite of its somewhat dubious reputation, I had been told that I could put up. A man came out in the sapient and good-natured stage of intoxication, and, the door being opened, I was confronted by a rough bar and a smoking, blazing kerosene lamp without a chimney. This is the worst place I have put up at as to food, lodging, and general character; an old and very dirty log-cabin, not chinked, with one dingy room used for cooking and feeding, in which a miner was lying very ill of fever; then a large roofless shed with a canvas side, which was to be an addition, and then the bar. They accounted for the disorder by the building operations. They asked me if I were the English lady written of in the "Denver News," and for once I was glad that my fame had preceded me, as it seemed to secure me against being quietly "put out of the way." A horrible meal was served -dirty, greasy, disgusting. A celebrated hunter, Bob Craik, came in to supper with a young man in tow, who, in spite of his rough hunter's or miner's dress, I at once recognised as an English gentleman. It was their camp fire which I had seen on the hillside. This gentleman was lording it in true caricature fashion, with a Lord Dundreary drawl and a general execration of everything; while I sat in the chimney corner, speculating on the reason why many of the upper class of my countrymen-" High

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Toners," as they are called out here-make themselves so ludicrously absurd. They neither know how to hold their tongues or to carry their personal pretensions. An American is nationally assumptive, an Englishman personally so. He took no notice of me till something passed which showed him I was English, when his manner at once changed into courtesy, and his drawl was shortened by a half. He took pains to let me know that he was an officer in the Guards, of good family, on four months' leave, which he was spending in slaying buffalo and elk, and also that he had a profound contempt for everything American. I cannot think why Englishmen put on these broad, mouthing tones, and give so many personal details. They retired to their camp, and the landlord having passed into the sodden, sleepy stage of drunkenness, his wife asked if I should be afraid to sleep in the large canvas-sided, unceiled, doorless shed, as they could not move the sick miner. So I slept there on a shake-down, with the stars winking overhead through the roof, and the mercury showing 30° of frost. I never told you that I once gave an unwary promise that I would not travel alone in Colorado unarmed, and that I left Estes Park with a Sharp's revolver loaded with ballcartridge in my pocket, which has been the plague of my life. Its bright ominous barrel peeped out in quiet Denver shops, children pulled it out to play with, or when my riding-dress hung up with it in the pocket, pulled the whole from the peg to the floor, and I cannot conceive of any circumstances in which it could have done me any possible good. Last night, however, I took it out, cleaned and oiled it, and laid it under my pillow, resolving to keep awake all night. I slept as soon as I lay down, and never woke till the bright morning sun shone through the roof, making me ridicule my own fears and abjure pistols for ever.

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THE MANATEE;

OR, THE MERMAID OF FICTION AND OF FACT.

BY HENRY LEE, F.L.S., F.G.S.

NEXT to the pleasure which the earnest zoologist derives from study of the habits and structure of living animals, and his intelligent appreciation of their perfect adaptation to their mode of life and the circumstances in which they are placed, is the interest he feels in eliminating fiction from truth whilst comparing the fancies of the past with the facts of the present. As his own knowledge increases, he learns that the descriptions by ancient writers of so-called "fabulous creatures" are rather distorted portraits than invented falsities, and that there is hardly one of the monsters of old which has not its prototype in Nature at the present day. Many of the older naturalists seem to have aimed rather at making their histories sensational than at carefully investigating the credibility or the contrary of the highly-These were coloured reports brought to them. frequently gross exaggerations, but there was a substratum of truth in them; and in the form and movements of animals with which we are familiar we may often recognise the living models of the bold, broad sketches from Nature from which the old artists drew their showy but untruthful pictures.

For example, the idea of the Lernean Hydra, whose heads grew again when cut off by Hercules,

originated from a knowledge of the octopus. Diodorus relates of it that it had a hundred heads Simonides says fifty; but the generally received statement is that of Apollodorus and Hyginus, that it had only nine, one of which was immortal. Here we have an animal with eight outgrowths from its trunk—the type of an octopus, which is really capable of rapidly developing afresh and replacing by new ones one or all of its limbs in case of their being amputated or injured. On many sculptured tablets and engraved gems the animal represented as in combat with Hercules is a well-portrayed octopus.

In almost all ages, and in all parts of the world, there has prevailed a belief in the existence of a race of beings uniting the form of man with that of the fish. The Assyrians were acquainted with it; for on an elaborate sculpture found at Khorsabad by M. Botta is depicted a figure composed of the body and tail of a fish and the upper half of the body of a man. The god Dagon of the Philistines and the goddess Atergatis of the Syrians were worshipped under a similar combination of human and fish-like forms, and the same idea is exemplified in the Tritons of classical mythology. From north to south the belief in mermen and mermaids has been entertained. Megasthenes reported that the sea which washed Taprobane, the ancient Ceylon, was inhabited by creatures having the appearance of a woman. Ælian stated that there were whales having the forms of satyrs. The early Portuguese settlers in India asserted that true mermen were found in those seas, and old Norse legends tell of submarine beings of conjoined human and fish-like form, some of whom have, from time to time, landed on Scandinavian shores, exchanged their fishy extremities for human limbs, and acquired amphibious habits. Not only have poets sung of the wondrous and seductive beauty of the maidens of these aquatic tribes, but many a Jack Tar has come home from sea prepared to affirm on oath that he has seen a mermaid. To the best of his belief he has told the truth. He has seen some living being which looked wonderfully human at a distance, and his imagination has supplied the rest. Nevertheless, all such accounts were ridiculed and discredited until more competent observers recognised in the form and habits of certain aquatic animals met with in the bays and estuaries of the Indian Ocean, the Red Sea, the west coast of Africa, and subtropical America, the origin of these "travellers' tales." These were—first, the manatee, which is found in the West Indian Islands, Florida, the Gulf of Mexico, and Brazil, and in Africa in the River Congo, Senegambia and the Mozambique Channel; second, the dugong, or halicore, which ranges along the east coast of Africa, Southern Asia, the Borneon Archipelago, and Australia; and, third, the rytina, seen on Behring's Island in the Kamschatkan Sea by Steller, a Russian zoologist and voyager, in 1741, and which is supposed to have become extinct within twenty-seven years after its discovery, by its having been recklessly and indiscriminately slaughtered. Then science, in the person of Illeger, made the amende honorable, and frankly accepting Jack's introduction to his Siren inamorata, bestowed on these three animals the name of the Sirenia, and classed

Almost all that is known of the living rytina is from an account published in 1751 in St. Petersburg by Steller, who was one of an exploring party wrecked on Behrings Island in 1741. During the ten months the crew remained on the island they pursued this easily-captured animal so persistently for food that it was all but annihilated at the time. The last one was killed in 1768.

them together as a sub-order of the animal kingdom. This was not done, however, without a quiet mental reservation by philosophers that "distance must have lent enchantment to the view," and that a sailor must be very impressible and imaginative who, even after having been deprived for many months of the pleasure of female society, could be allured by the charms of a bristly-muzzled dugong, or mistake the snorting of a wallowing manatee for the love-song

of a beauteous sea-maiden.

It has been found difficult to determine to which order these Manatida are most nearly allied. shape they most closely resemble the whales and seals. But the cetacea are all carnivorous, whereas the manatee and its relatives live entirely on vegetable food. Although, therefore, Dr. J. E. Gray, following Cuvier, has classed them with the cetacea in his British Museum catalogue, other anatomists, as Professor Agassiz, Professor Owen, and Dr. Murie, regard their resemblance to the whales as rather superficial than real, and conclude from their organisation and dentition that they ought either to form a group apart or be classed with the pachyderms-the hippopotamus, tapir, etc.—with which they have the nearest affinities, and to which they seem to have been more immediately linked by the now lost genera, Dinotherium and Halitherium. With the opinion of those last-named authorities I entirely agree. I regard the manatee as exhibiting a wonderful modification and adaptation of the structure of a warm-blooded land animal to enable it to pass its whole life in water, and as a connecting link between the hippopotamus, elephant, etc., on the one side, and the

whales and seals on the other. The Halitherium was a Sirenian with which we are only acquainted by its fossil remains found in the Miocene formation of Central and Southern Europe. These indicate that it had short hind limbs, and, consequently, approached more nearly the terrestrial type than either the manatee, the rytina, or the dugong, in which the hind limbs are absent. The two last named tend more than does the manatee to the marine mammals; but there is a strong likeness between these three recent forms. They all have a cylindrical body, like that of a seal, but instead of hind limbs there is in all a broad tail flattened horizontally; and the chief difference in their outward appearance is in the shape of this organ. In the manatee it is rounded, in the dugong forked like that of a whale, in the rytina crescent-shaped. The tail of the Halitherium appears to have been shaped somewhat like that of the beaver. The body of the manatee is broader in proportion to its length and depth than that of the dugong.* In a paper read before the Royal Society, July 12th, 1821, on a manatee sent to London in spirits by the Duke of Manchester, then Governor of Jamaica, Sir Everard Home remarked of this greater lateral expansion that, as the manatee feeds on plants that grow at the mouths of great rivers, and the dugong upon those met with in the shallows amongst small islands in the Eastern seas, the difference of form would make the manatee more buoyant and better fitted to float in fresh water. I have seen statements that a full-grown manatee is from sixteen to eighteen feet in length and weighs 1,500 pounds, but I am informed that this is an exaggeration, and that it is doubtful whether it ever attains to a greater length

Many attempts have been made to exhibit the manatee alive in captivity, but hitherto without much success. In April, 1866, one five feet five inches long, and 228 pounds in weight, was shipped by Mr. George Latimer from Porto Rico, in charge of Captain Sawyer, of the steamer Tasmanian. It died six days before its arrival at Southampton, but by the thoughtful care of the purser of the ship, Mr. Edward Greey, its body was preserved in salt, and proved to be most valuable. Its anatomical dissection forms the subject of a masterly paper by Dr.

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than ten feet. The skin is as hard and thick as that of an elephant, and of nearly the same colour when dry, though it is sooty black in hue when wet. its surface are a few slender hairs. The head is conical, and without neck or mark of depression at its junction with the body. The muzzle is large and fleshy, and at the upper part of its extremity are two nostrils, concerning which, as well as the eyes, mouth, etc., I shall have more to say presently. The mamma of the female, which are greatly dis-tended during the period of lactation, are situated very differently from those of the whales, being just beneath the pectoral fins. These fins or paws are much more flexible and freer in their movements than those of the cetæ, and are sufficiently prehensile to enable the animal to hold her young one to her breast with one of them, and to gather food between the palms or inner surfaces of both. Like the whales, the manatee is a warm-blooded mammal, breathing by lungs, and it is therefore obliged to come to the surface at frequent intervals for respiration. As it breathes through nostrils at the end of its muzzle, instead of, like most of the whales, through a blowhole on the top of its head, its habit is to rise, sometimes vertically, in the water, with the head and fore part of the body exposed above the surface, and often to remain in this position for some minutes. When seen thus, with head and breast bare, and clasping its young one to its body, it presents a certain resemblance to a woman from the waist upward. When approached or disturbed it dives; the tail and hinder portion of the body come into view, and we see that if there was little of the "mulier formosa superne," at any rate "desinit in piscem." It has thence been called by the Spaniards and Portuguese the "womanfish," and by the Dutch the "manetje," or mannikin. The dugong, having the muzzle bristly, is named by the latter the "baardmanetje," or "little bearded man." There are no bristles or whiskers on the muzzle of the manatee; all the portraits of it in which these are shown are in that respect erroneous. The origin of the word "manatee" has by some been traced to the Spanish, as indicating "an animal with hands." On the west coast of Africa it is called by the natives "Ne-hoo-le." By old writers it was described as the "sea-cow." Gesner depicts it in the act of bellowing, and Mr. Bates, in his work on "The Naturalist on the Amazon," says that its voice is something like the bellowing of an ox. The Florida "crackers," or "mean whites," make the same statement. I have not heard it give utterance to any sound-not even a grunt-and Mr. Bartlett, of the Zoological Gardens, tells me that his experience of it is the same. His son, Mr. Clarence Bartlett, says that a young one he had in Surinam (to be presently described), used to make a feeble cry, or bleat, very much like the voice of a young seal. This is the only sound he ever heard from a

^{*} For drawings and description of the Dugong, by the Rev. W. Wyatt Gill, of Mangaia, see "Leisure Hour," 1875, p. 824.

Murie, in the eighth volume of the "Transactions of the Zoological Society," to which I am indebted for the following particulars of the capture and travels

of the manatee that was next imported.

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Whilst Mr. Latimer was striving to obtain a manatee for the Zoological Society of London, another correspondent of the Society, Herr A. Kappler, of Surinam, was likewise bestirring himself to obtain one. Indeed, ere the former gentleman's letter and animal had arrived, Mr. Clarence Bartlett, above mentioned, was on his way out to bring home a young male manatee from Herr Kappler. This specimen had been captured in the Maroni river, and confined in a creek, an offshoot of the main stream. Its mother having been killed, *the youngster had been fed on cow's milk from a bottle, the mouth of which had an



THE MANATEE

elastic nipple attached to it. In order to accustom and attach the young manatee to him, Mr. Bartlett had to enter the water twice daily to feed him. Wearing only a loose pair of cotton trousers and shirt, he waded about, and when his pet became used to him, as it very soon did, it allowed itself to be coaxed to the water's edge, and its nurse, seating himself on the bank, would lift it from the water, lay it across his knees, and, somewhat in the position of a little boy about to receive a "spanking" for misconduct, the young animal would suck from the bottle until the last drop of milk had gurgled down its throat. When its appetite was satisfied it would lazily tumble back into the lagoon and roll about after the manner of a seal, and, retiring to a deep part of the pool, would lazily sleep with its muzzle and nostrils above the surface. A month or two

A third trial was, however, more successful. On the 6th of August, 1875, a female manatee, 7ft. 4in. long, and 5ft. in girth, arrived at the Zoological Gardens. It had been sent over by Mr. R. Swain from Pin Point, Demerara, and conveyed to England on board the steamship Blenheim, Captain Robinson, in a large wooden tank slung on a horizontal pole to prevent its being bruised and shaken by the motion of the vessel. During the voyage it was fed on the leaves of a large aquatic plant resembling the waterlily, a great quantity of which had been taken on board for its provender. It was about three weeks on the voyage. On its arrival it was placed in one of the shallow cemented ponds near the sea lions' This pond had been especially prepared by Mr. Bartlett for the regulation of the temperature of the water it contained. When the manatee was turned into it she seemed to revel in her bath, and almost immediately began to feed on lettuce and vegetable marrow given to her. She soon became tame, and would follow her keeper round the tank, and take food from his hand. This animal lived in apparently good health till the 7th of September,

when she died very suddenly.

A still more satisfactory attempt to keep the manatee alive in captivity was made in the summer of the following year, 1876, when a female, not fully adult, about 6ft. long, which had been caught in the River Orinoco, was shipped from Demerara to Philadelphia. It arrived at the menagerie of the Zoological Society of that city on the 15th of June, and lived there for three months. The great difficulty seems to be to provide for the manatee an abundant supply of its proper food. This naturally consists of succulent sub-tropical aquatic plants,

passed away before it could be removed, for great difficulty was experienced in preparing a water-tight tank in that country, where carpenters were scarce, the wood as hard as iron, and zinc and iron unprocurable. At length, on the 19th of June, Herr Kappler and Mr. Bartlett started en route for England, but nearly lost their precious charge whilst traversing a dangerous current of the Maroni river. The boat, with the great, awkward tank lashed to it, was nearly upset, and all expected a capsize and a disastrous termination of the experiment. However, they arrived safely at Paramaribo two days afterwards, and there Mr. Bartlett took leave of his courteous host, and went on in a small Dutch steamer His difficulties were not over, for to Demerara. on the passage the tank and manatee were in danger of being swept overboard during a hurricane. But in due time they reached Demerara, and were there transferred to the English steamer Wye, bound for Barbadoes, where they anchored on the 25th of the same month. Thence they embarked for St. Thomas on the steamship Conway, and on the 29th were transhipped to the West India Mail Company's steamer Atrato, which arrived at Southampton on the 12th of July. Up to the 8th of July everything seemed to indicate that the manatee would survive the voyage. A goat had been brought with it to provide it with milk, of which it had daily a fresh and plentiful supply, and occasionally a few bananas. But on the 9th a chilling east wind set in, the manatee became suddenly ill, and died the next day, two days before the completion of the voyage to Southampton. Thus, unfortunately, was frustrated the second attempt to bring a living manatee to England.

^{*} Her remains are deposited in the Stuttgart Museum.

which grow in great profusion in the localities which it frequents, especially one called the "pana brava," which floats on the borders of streams. For this no entirely satisfactory substitute has been found, though the animal will, as I have said, eat lettuce, vegetable marrow, etc. The Philadelphia specimen preferred to anything else a variety of the common

water-plant, Potamogeton.

We now come to the date of the arrival in London of a manatee which has contributed more than any of its predecessors in captivity to our knowledge of the habits of its species. On the 18th of June, 1878, the authorities of the Royal Aquarium, Westminster, received information that one of these animals had arrived in the Clyde, on board the steamship Blenheim, Captain Picot. Mr. Carrington, the naturalist to the institution, immediately started for Glasgow, armed with plenary powers to purchase it, which, after a smart competition with other would-be buyers, he succeeded in doing for the sum of £200. It had been caught in a net by some fishermen on the Dauntless Bank, off the island of Leguana, near the mouth of the Essequibo river in British Guiana, and is said to have been the first specimen observed in that locality for the past three years. During its voyage it had been kept in water in a water-tight box similar to those already mentioned, and in this Mr. Carrington conveyed it as soon as possible from Glasgow to Westminster. I had been courteously informed of the expected arrival of this rare animal, and gladly availed myself of the invitation to be present at its reception at the Aquarium about 6 p.m. on the 20th.

If one of our sailor friends, an honest believer in mermaids, had been with me that evening when I first looked at it in its tank, any romance he might have had in his disposition would have endured a severe wrench on his being told that there lay before him in that eistern of inky-looking and not inodorous water, the Siren of whom he and his shipmates had been inclined to become enamoured. Just above the surface of the dirty fluid appeared, not the shapely shoulders of a soft-skinned, golden-haired damsel, but the flattish back of some animal which might have been a submerged hippopotamus for aught that could be seen to the contrary. The hide was so harshly hard that one's fingers grated on it as they touched it, and it looked black and corrugated like an old leather carriage-hood on which varnish had been too thickly laid and allowed to dry in ridges and furrows. No silky tresses requiring the traditional comb fell gracefully from its head; their only representatives were some short, fine hairs covering the whole body, and others growing in flocculent tufts from little tubercles set wide apart, somewhat like those of the cucumber or the prickly pear. When the great creature was hoisted in a canvas sheet out of the box which it had occupied so long, and was revealed to view in all its bulk and ugliness as a manatee rather more than eight feet long, there was little in its appearance, as it lay helpless on the wet floor, to convey the idea that we had before us the reality of so many pretty fictions. As the great fishkettle-shaped tank in the southern annexe was occupied at the time by the white whale, the manatee was placed in a large tank with glass sides, entirely above the surface of the floor. This proved to have been a most fortunate necessity, for the facilities afforded by it for observing every movement of the animal are perfect. At first it was feared that this tank would be much too small for the purpose, but the manatee is very lethargic in its habits, and

seldom avails itself of the whole of the small space at its disposal. It seems to prefer to rest in a very curious position, with its body athwart the tank. Having no legs, it stands on its incurved spatulate tail, its body arched, its head bent forward, its flippers hanging listlessly and placidly downwards. In this attitude of indolent ease it remains motionless for sometimes two or three minutes at a time, its muzzle resting against the glass wall on one side, and the upper surface of its flat tail and the lower part of its back against the opposite pane. When it requires to breathe it gradually straightens its body, and rises slowly and solemnly till it becomes sufficiently erect to thrust its nostrils for an instant above the surface. Having taken breath, it sinks gently back to its former position, and rests stock still as before, until obliged by the necessity of respiration to repeat the movement. The great, unwieldy-looking body is so poised in the water by its specific gravity, that little or no weight rests upon the tail, and little or no exertion is required to raise the head to the surface. Every movement seems so balanced, that it looks as if a bubble would float it, or the pressure of an infant's finger sink it. But that sluggish form that looks so helpless and so humble is by no means incapable of vigorous activity, and is far from being devoid of intelligence. In that broad, flat, horizontal tail is a latent power which would enable it to break a man's spine or ribs by a single blow, or to propel the body to which it is attached, by an up-and-down motion like that of a whale, at a speed that no human swimmer or rower could attain to. Of its striking power I have witnessed an instance. When the manatee was turned into its glass tank—an operation requiring much tact and skill, owing to the position of some iron ties-it gave with the flat of its tail, on the bottom of the tank, a blow which made the water fly in spray, and the whole structure tremble. And a friend who has chased the manatee in its native rivers tells me that it can swim as fast as a whale, and that if it habitually used the speed of which it is capable, it would be exceedingly difficult of eapture, especially with the poor implements and apliances of the natives of the countries it inhabits. Its hide is so tough as to be impervious to any blade but one of good steel. The most serviceable weapon used by the natives is a common three-sided sawfile, which, ground to a sharp point and fastened to a spear shaft, inflicts a deadly stab. But its generally lethargic and inoffensive habits render it an easy prey. Feeding along the edges of streams on floating vegetation, and sometimes even, as my friend tells me, raising its head and the upper part of its body above the water to browse on the juicy plants growing on the banks, it takes little heed of the hunter intent on its capture, unless it has been previously chased. But, if alarmed, this animal, which looks so slothful and so stupid, exhibits surprising sagacity. It generally goes in families, male, female, and cub together, but in calm weather is often seen in large troops. If an attack be made on one of in large troops. If an attack be made on one of these "schools," the young are placed in the centre of the herd, the bulls patrol nearest to the threatened danger, and all unite for the common safety, and sympathise with and assist their wounded companions, even to the extent, it is said, of pulling out of their bodies spears and arrows by which they have been pierced. Many old writers have mentioned the gentleness and docility of the manatee, and the ease with which it may be rendered friendly and sociable with thoo
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with those who treat it kindly. Aldrovandus tells us ("De Piscibus," p. 729), on the authority of Franciscus de Gomara, an old Spanish historian, that a small manatee caught off the island of Hispaniola, and placed in an inland lake, would come to the shore when called by its name "Mato," take food from the hand, and, permitting boys and even men to mount on its back, would swim off with them to the other side of the lake. A Spaniard, however, having once hurled a spear at it, though without hurting it, it would never again approach a man who wore a beard or a European dress.

So much for the latent strength, speed, and intelligence of the inert-looking being which in the course of a really brilliant word-picture of it in the columns of a daily paper has been described as "the embodiment of feeble helplessness—a thing for shrimps to

mock at and limpets to grow on."

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When out of water, however, the animal is little better than a flopping, flabby mass of helplessness. Aldrovandus adds to his record of that above referred to that it would come from the water and make its way to a temple to receive food. This must be incorrect, for observation has confirmed that which the structure of the animal, especially the weakness of its fore limbs, indicates, namely, that it is purely aquatic in its habits, and that on dry ground it is quite unable to advance or recede. All the flexions of the body are up and down, and its only power of movement on land is to roll over, by the aid of its paddles and tail, from belly to back, and vice versa. Of the Philadelphia specimen it was remarked that when resting on its belly it seemed to experience a difficulty of breathing, but appeared to be comparatively comfortable when lying on its back. I am unable to confirm this with regard to the manatee at Westminster. Owing to the large quantity of vegetable matter cast into its tank for food, a considerable amount of slime settles on the skin, and the warmth of the water and the light to which it is exposed encourage When the tank is a rapid growth of conferva. cleaned out, and the water is run off for this purpose, the manatee seems now quite to understand that this process is for its benefit. Lying quietly on its belly, it allows itself to be sponged and brushed, and cleansed of the vegetable encumbrance; but if any attempt be made to turn it on its back, the formidable tail is flourished and flapped, and then "look out!" Let us wait and see the tank filled up, and then watch the process of respiration which the manatee performs so leisurely. The cold water must not be allowed to pour in with a rush, lest it inflict a mortal chill on an animal accustomed to the tepid streams of the tropics. As it enters it is gradually warmed by steam, until a temperature of 75° is produced, and this is constantly and equably maintained. dently pleased to be once more fully immersed, the manatee exserts above the surface the thick, flabby disc which terminates its muzzle, and on the extremity of which the nostrils are placed; and we are immediately enabled to understand the apparatus which prevents the water entering the air-passages when the head is submerged. The circular crifices of the nostrils when under water are each closed by a flap valve, which, when air is inhaled, is retracted for a short distance along the nasal tubes. As the snout slowly sinks beneath the surface, these valves are seen to rise from the inside, and completely close the apertures. The mechanism is more like that of the nostrils of the hippopotamus than the blow-

hole of the whale; but both answer the same purpose, namely, to enable the animal to fill its lungs with air, whilst effectually excluding from them the water in which its body is immersed. The lungs of the manatee are of enormous size, and occupy the whole length of the body, lying above the intestinal canal. As in the seals and whales, a vast quantity of blood is aërated at each respiration, and kept in reserve, and thus the animal is enabled to remain for some time

under water without breathing.

The next thing to observe is the remarkable manner in which the manatee takes its food, and the very curious structure of its mouth. The full, fleshy upper lip is cleft in the middle, like that of a hare, and is thus divided into two portions with a perpendicular opening between them. At each side of this opening each half lip is rounded into a peculiar pad covered with bristles as thick as the whiskers of the walrus, and about half an inch in length. When the animal takes food—the leaf of a lettuce for instance—the lettuce-leaf enters between these bristly pads, they approach each other, the lettuce is seized by them as if between a pair of toothed rollers, and is conveyed into the mouth inch by inch, by backward movements of the lip as a whole, as if the said rollers were worked by a cam or rachet movement, and not by steady concentric revolution. In this act little assistance is given by the lower lip. Professor Garrod has compared the action of this peculiar organ to that of the mouth of the silkworm and other caterpillars; the mandibles in these insect larvæ diverging and converging laterally in a very similar manner whilst devouring a leaf. The lettuce or other food having been thus carried into the mouth, is then masticated by powerful molar teeth, of which there are thirty-eight-twenty in the upper and eighteen in the lower jaw. These, how-ever, are not all present at one time, as they are occasionally shed and succeeded by others.

Whilst eating, the manatee often collects its food and draws it towards the mouth by a fanning and gathering action of its flippers, which are placed well forward on the body, and are very flexible. The specimen at Westminster is only able to use one of its limbs in this way; the other is stiff, apparently from an old injury. On the outer edge of each of

these flippers are rudimentary nails.

The eyes are very small, about half-an-inch in diameter, of a dull blue colour, and devoid of expression. The eyelids are very peculiar. They are formed of circular muscular rings capable of dilation and contraction, so that when the eye is closed it is not by the shutting together of an upper and a lower lid, but by equal contraction all round. The eyelids of the hairy-eared rhinoceros are similar in construction.

The external orifice of the ear, as in the whales, is

almost imperceptible.

Another peculiarity of the manatee worth mentioning is, that it has one vertebra less in the neck than any other animal except one—Hoffman's sloth. In the short neck of the porpoise, in the long neck of the giraffe, in the human neck, and in the neck of all other mammals, with the exception above mentioned, there are seven cervical vertebræ. The manatee has only six.

The flesh of the manatee is considered a great delicacy. Humboldt compares it with ham. Unlike that of the whales, which is of a deep and dark red hue, it is as white as veal, and, it is said, tastes very like it. It is remarkable for retaining its freshness

much longer than other meat, which in a tropical climate generally putrefies in twenty-eight hours. It is therefore well adapted for pickling, as the salt has time to penetrate the flesh before it is tainted. Catholic clergy of South America do not object to its being eaten on fast days, on the supposition that, with whales, seals, or other aquatic mammals, it may be liberally regarded as "fish." My friend, above referred to, tells me that the "Indians" of the Amazon and Orinoco are so fond of it that they will spend many days, if necessary, in hunting for a manatee, and having killed one will cut it into slabs and slices on the spot, and cook these on stakes thrust into the ground aslant over a great fire, and heavily gorge themselves as long as the provision lasts. The milk is said to be rich and good, and the skin is valuable for its toughness, and is in great request for making leathern articles in which great strength and durability are required. The tail contains a great deal of oil, which is believed to be extremely nutritious, and has also the property of not becoming rancid. Unfortunately for the dugong, its oil is in similarly high repute, and is greatly preferred as a nutrient medicine to cod-liver oil. As its flesh also is much esteemed, it is so persistently hunted on the Australian coasts that it will probably soon become extinct, like the rytina of Steller. The same fate apparently awaits the manatee, which is becoming perceptibly more and more scarce.

The scientific value and interest attached to the specimen now exhibited at the Royal Aquarium, Westminster, may be best appreciated by considering a remark by Dr. Murie in his treatise published in 1870, and quoted above—that "the exhibition of a living specimen of the order Sirenia (a veritable mermaid) in this country would, if achieved, form one of the most sensational triumphs incident to the introduction of rare and comparatively unknown animals into Britain." As the specimen on view is apparently in excellent health, eats heartily about eighty-four pounds of lettuces per day, and has already lived longer than the only one previously brought alive to England, we may hope that the public will be able to observe the habits of this rare animal for some time to come, and that, after its death, we may become more intimately acquainted with many in-

teresting portions of its anatomy.

Varieties.

CLIMATE OF CYPRUS.—The Scottish Meteorological Society established in Cyprus one of its foreign climatological stations in 1866, where, for about four years, observations were made by Mr. J. B. Sandwith, her Majesty's vice-consul, and the results were regularly published in the Society's journal. Summarising them, we learn that the annual rainfall is about fourteen inches, nearly the whole of which falls from November to April, notably in November and December, that no rain falls in June, July, and August, and but in trifling amounts occurring rarely in May and September. There are thus practically five rainless months in the year in Cyprus, a feature in its climate common, as we have recently had occasion to remark, to the climates of the Mediterranean regions south of latitude 43 deg. ("Nature," vol. xviii. p. 287). Comparing it with the coasts of Syria opposite, its winters are milder and its summers cooler. The decidedly insular character of its climate is further apparent from the fact that the coldest month is February, with a mean temperature of 52 deg. 8 min., being about equal to that of London in the middle of May, and that the mean temperature of August is nearly as high as that of July, both being about 11 deg., which is approximately the summer temperature of

Algiers, Alexandria, Athens, and Constantinople. During these four years, the nighest recorded temperature of any of the months was 96 deg., except June, 1869, when, from the 21st to the 24th, the mean temperature at Alethriko, three and a half miles inland from Larnaka, reached 95 deg. 5 min., being about the average summer temperature of the Punjab, rising on one of these days to a maximum of 105 deg. On the same day the temperature rose to 100 deg. at Larnaka, and to 103 deg. 5 min. at Jerusalem, 2,500 feet above the sea, the period being characterised as one of unprecedented heat and drought over the whole of the regions bordering the Levant. It is obvious to remark that much may be done in mitigation of the effects of the summer heat, just as has been done in countries similarly circumstanced, by the establishment of sanataria among the mountains, and by carrying through agricultural improvements and engineering works, which would at the same time contribute to the material prosperity of the island.—Nature.

Husks more profitable than Pearls.—"Josh Billings" (Henry W. Shaw) is reported to have made more money than almost any American author by persistent working of his peculiar vein of humour. Some years he has got \$4,000 from a weekly newspaper for his exclusive contributions; has made \$5,000 or \$6,000 by lecturing, and has had a profit from his Almanack of \$8,000 or \$9,000 more—\$18,000 to \$20,000 per annum. That is five or six times as much as Emerson, Hawthorne, Lowell, or Holmes has ever made.—New York Times.

THE KING OF BAVARIA AND AN INVALIDED SOLDIER.—
The dilettante King of Bavaria one day met a soldier with a wooden leg, and asked him when he lost it. "In the war of 1866," replied the warrior gruffly. "Don't you know me!" asked the king, somewhat piqued at the soldier's manner. "No; how should I?" was the reply; "you don't go to the wars, and I don't go to the opera."

DAMASCUS IN 1877.—Vice-consul Jago, reporting to our Foreign Office on the trade of Damascus during the year 1877, gives a very gloomy account of it. Local Christian and Jewish capitalists have been reduced to penury by the failure of the city to pay interest on its bonds for the debt (with arrears) of £600,000, and extra war taxes, forced loans, and "volunsubscriptions in aid of the war have well-nigh exhausted the resources of both rural and urban populations. The viceconsul says that taxes are levied in most cases in proportion to the supposed means of the contributor. The consuming powers of the people are restricted to articles of absolute necessity. Imports of foreign manufactures are confined chiefly to English prints of the cheapest descriptions. Two of the three European houses established at Damascus retired from the field in 1877, and the number of European residents, all told, can be counted on the fingers. The Bagdad overland trade is virtually extinct. The Sucz Canal has turned aside the formerly large consignments of European manufactures purchased in Damascus and sent to Bagdad. The war has led Persian pilgrims to Mecca to go by the sea route, viá the Persian Gulf. A few years ago as many as 3,000 of these brought with them to Damascus large quantities of merchandise for sale and purchased there for traffic in the holy cities much goods and ware, and the like commercial operations attended their return. Thus a succession of blows has struck down the prosperity of Damascus, and neutralised the gifts of nature which abound so profusely on every side. Damascus is the seat of the Government of Syria, bell such that the headquarters of the 5th Army Corps of the Empire, and the population is estimated at from 100,000 to 140,000; and now the trade and industry are limited to providing for the scanty wants of an impoverished people in the sole matter of food and articles of strict necessity, and for the rude requirements of the Bedouins and of the denizens of the unsettled and half-savage districts around. The vice-consul says that it is difficult to discover in what manner the greater portion of the inhabitants manage to subsist. Household effects and articles of value have been disposed of, and a loan of a few pounds is an impossibility, even among the so-called rich. The streets are filled with beggars, both Moslem and Christian, and that, too, in a city beggars, both Moslem and Christian, and that, too, in a city where two years ago a beggar was a rarity. Debts are no longer paid, the present circumstances being held an all-sufficient excuse for deferring payment. The introduction of cains, or paper money, into monetary transactions, with its ever-increasing depreciation (fifty per cent. at the close of last year), has had a most disturbing influence; the Government payments were thus reduced in value to half their nominal amount. Still, the vice-consul apprehends that, perhaps, his report is not more gloomy than those from many other parts of the Ottoman deminions under existing circumstances.

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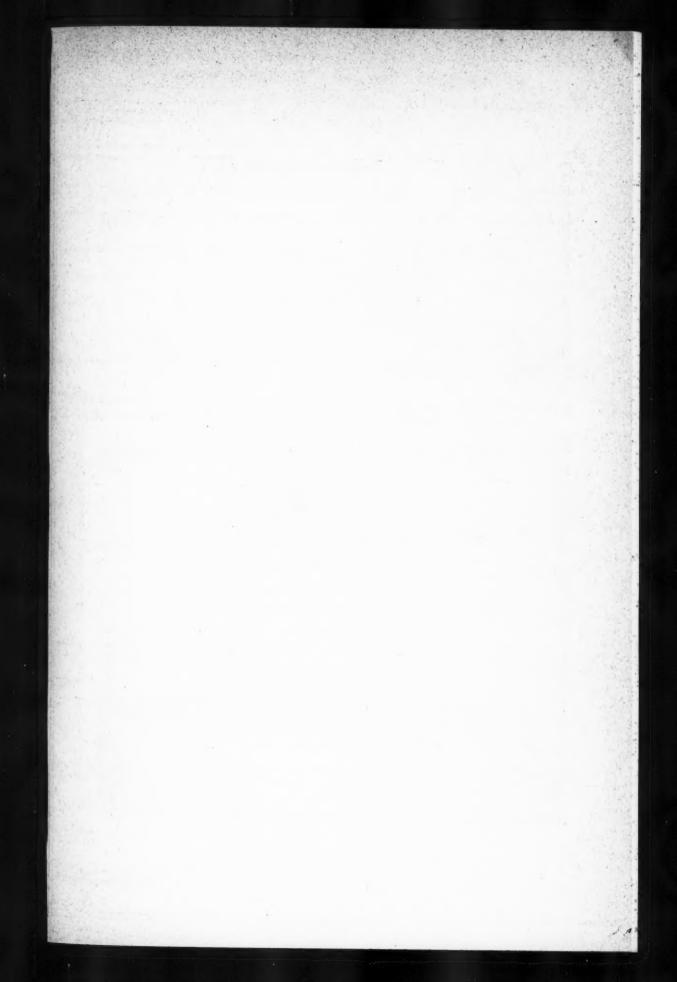
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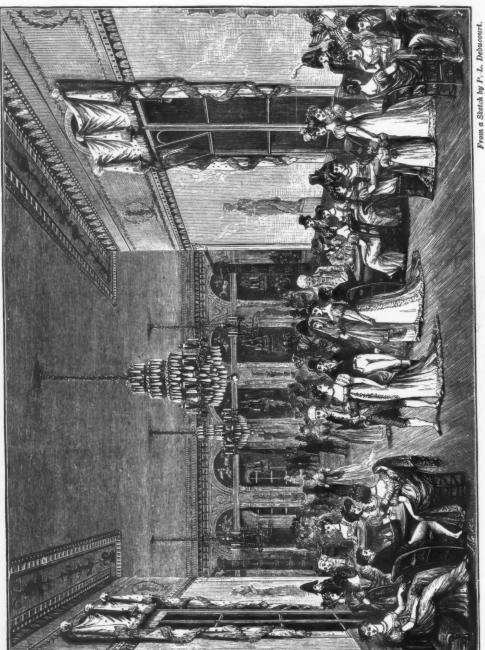
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From a Sketch of F.-L. Leona

FRASCATI FIFTY YEARS AGO.

SIT consolves side von December No.